

CLAIMS

1. An *in vitro* toxicity assay comprising:
  - a) exposing a spheroid sample to a selected  
5 concentration of a compound to be  
assayed;
  - b) incubating the spheroid sample for a  
suitable period of time; and
  - c) observing if spheroid cell spreading  
10 inhibition takes place.
2. An *in vitro* toxicity assay according to claim 1,  
wherein spheroid cell spreading inhibition indicates  
that, at the selected concentration, the compound has a  
15 toxic effect on the spheroid cell.
3. An *in vitro* toxicity assay according to claim 1 or  
claim 2, wherein the spheroid cell is derived from  
cells selected from the group consisting of neuronal  
20 cells, liver cells and retinal cells.
4. An *in vitro* assay according to any preceding claim  
wherein the spheroid sample is derived from a mammalian  
cell.  
25
5. An *in vitro* toxicity assay according to claim 4,  
wherein the mammalian cell is a human, rodent, or  
porcine cell.
- 30 6. An *in vitro* toxicity assay according to claim 4,  
wherein the mammalian cell is a non-human primate or  
dog cell.
7. An *in vitro* toxicity assay according to any one of  
35 claims 1 to 3 wherein the spheroid sample is derived  
from a fish cell.

8. An *in vitro* toxicity assay according to any preceding claim, wherein the spheroid cell is derived from a cultured cell line.

5

9. An *in vitro* toxicity assay according to any preceding claim, wherein the spheroid sample comprises more than one cell type.